

Lamin A/C (346): sc-7293

BACKGROUND

A unique family of cysteine proteases has been described that differs in sequence, structure and substrate specificity from any previously described protease family. This family, termed Ced-3/ICE, is comprised of ICE, CPP32, ICH-1/Nedd-2, Tx, Mch2, Mch3 (ICE-LAP3 or CMH-1), Mch4 and ICE-LAP6. Ced-3/ICE family members function as key components of the apoptotic machinery and act to destroy specific target proteins which are critical to cellular longevity. Nuclear Lamins are critical to maintaining the integrity of the nuclear envelope and cellular morphology. The nuclear Lamin A is cleaved by Mch2, but not CPP32. Nuclear Lamin B is fragmented as a consequence of apoptosis by an unidentified member of the ICE family. Lamin C is a splice variant of Lamin A, differing only at the carboxy-terminus. Lamins A and C are identical for the first 566 amino acids, with Lamin C differing only in six unique carboxy-terminal amino acids.

CHROMOSOMAL LOCATION

Genetic locus: LMNA (human) mapping to 1q22; Lmna (mouse) mapping to 3 F1.

SOURCE

Lamin A/C (346) is a mouse monoclonal antibody raised against nuclear lamin fraction of rat liver origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Lamin A/C (346) is available conjugated to agarose (sc-7293 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

APPLICATIONS

Lamin A/C (346) is recommended for detection of Lamin A and Lamin C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Lamin A/C siRNA (h): sc-35776, Lamin A/C siRNA (m): sc-29385, Lamin A/C shRNA Plasmid (h): sc-35776-SH, Lamin A/C shRNA Plasmid (m): sc-29385-SH, Lamin A/C shRNA (h) Lentiviral Particles: sc-35776-V and Lamin A/C shRNA (m) Lentiviral Particles: sc-29385-V.

Molecular Weight of Lamin A/C: 69/62 kDa.

Positive Controls: U-251-MG whole cell lysate: sc-364176, C6 whole cell lysate: sc-364373 or HeLa whole cell lysate: sc-2200.

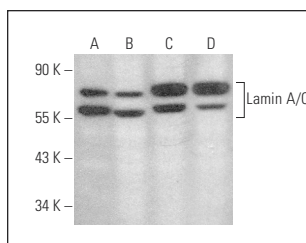
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

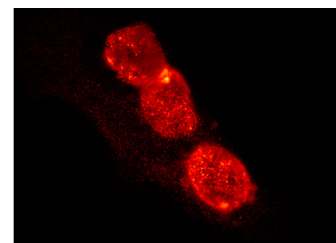
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Lamin A/C (346): sc-7293. Western blot analysis of Lamin A/C expression in U-251-MG (A), C6 (B), HeLa (C) and NIH/3T3 (D) whole cell lysates.



Lamin A/C (346): sc-7293. Immunofluorescence staining of methanol-fixed Hs6B cells showing nuclear envelope staining.

SELECT PRODUCT CITATIONS

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- Xu, Y., et al. 2014. U12, a UDCA derivative, acts as an anti-hepatoma drug lead and inhibits the mTOR/S6K1 and cyclin/CDK complex pathways. *PLoS ONE* 9: e113479.
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- Zhao, Y., et al. 2017. Small molecule p300/catenin antagonist enhances hematopoietic recovery after radiation. *PLoS ONE* 12: e0177245.
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CONJUGATES

See **Lamin A/C (E-1): sc-376248** for Lamin A/C antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.